

the liberation of a large quantity of gas or some other effect is required.

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Factors involved in blood volume regulation.

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That the volume of the blood is not normally constant is shown by distinct diurnal variations in this value as determined by the hemoglobin percentage when the animal (dog) is in complete muscular rest and unanesthetized. Administration of ether is immediately followed by a decrease in the relative blood volume which condition persists not only throughout the period of anesthesia but for some time afterward.

When isotonic saline is injected intraperitoneally the diluting effect on the blood volume is not observed until several hours later. The oral administration of saline dilutes the blood to a greater degree in similar time than similar doses of water. As might be expected, intravenous injection of saline show the most pronounced degree of dilution. Usually, however, the normal relative blood volume is attained after approximately two hours following the intravenous injection (100 c.c. per Rg. body wt.). At this time, when large volumes of fluid are unaccounted for, neither the muscles nor the liver show a detectable increase in fluid-not-blood. Renal activity is not essential for this prompt adjustment of blood volume for the urine volume does not account for the "lost" fluid.